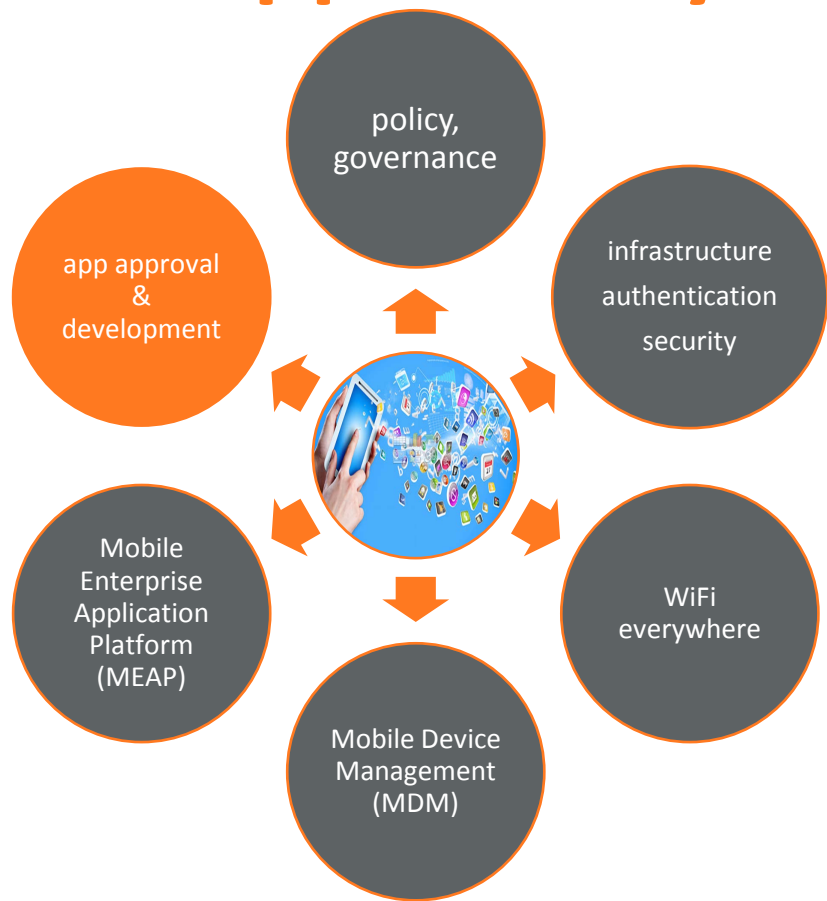# Smart device apps in clinical practice

Kelly Bohot @kellybohot08, Health Informatics New Zealand – Rotorua – 2017

opportunity

- policy, governance
- infrastructure authentication security
- app approval & development
- WiFi everywhere
- Mobile Enterprise Application Platform (MEAP)
- Mobile Device Management (MDM)

Laying foundations for mobility

- Mobility strategy and community AH mobile use case

- Interest and demand to use mobile apps as part of clinical practice

- 50,000-260,000 health related apps available

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reality

UK Tries Again With a Library of Certified Mobile Health Apps

The UK's National Health Service has relaunched its Digital Apps Library. The four-year project has produced only one approved mobile health app, but officials say the library will grow as more are certified.

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thoughts about mobile apps

"Desktop applications for clinics if fine, but more portable access would be good for rounds"

"the purpose of apps needs to be improving workflow (vs health targets and patient experience), which will allow our team to be more effective in providing better care anyway"

'I often want to know the result of a blood test while on the round, and need one of the team to run off down the other end of the ward to view that information".

"safety of data is paramount in our professions…it takes one bad thing to happen that gets into the media, then the whole thing could break down".

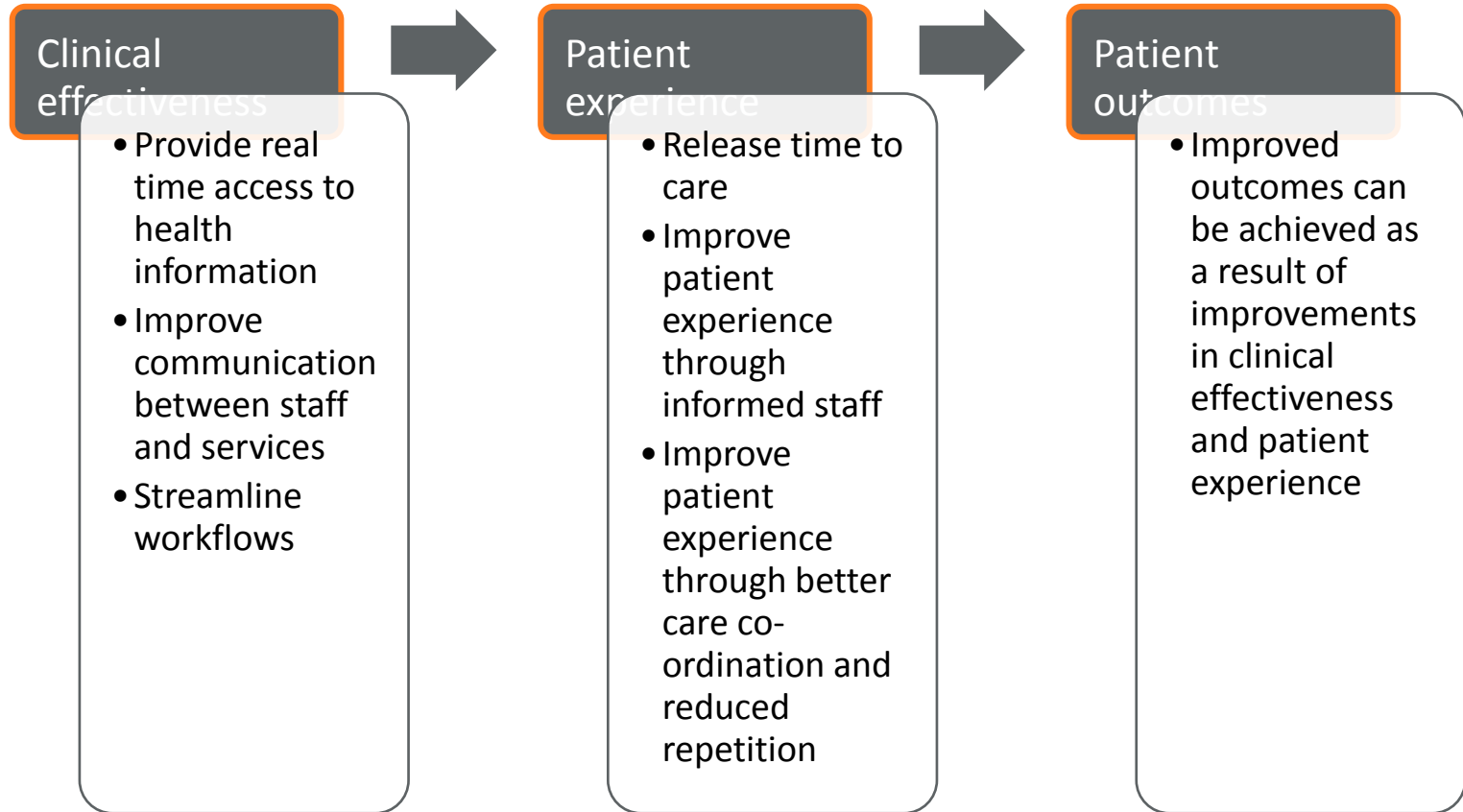"doctors who are training are now expecting to use technology quite heavily"

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horizon scanning

- **evaluate apps**
- **develop own apps**
- **develop quality control programmes**

operational excellence

Clinical effectiveness

- Provide real time access to health information
- Improve communication between staff and services
- Streamline workflows

Patient experience

- Release time to care
- Improve patient experience through informed staff
- Improve patient experience through better care co-ordination and reduced repetition

Patient outcomes

- Improved outcomes can be achieved as a result of improvements in clinical effectiveness and patient experience

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app request form

Purpose of app

what – where – why – who – when - how

Impact on clinical effectiveness and efficiency

Impact on patient experience

Ease of implementation

Impact on data and security

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testing the idea

Name	
Email address	
Position	
Date	DD/MM/YY
Name of app	
Developer	
Cost ($)	0.00
Where did you find the app?	

What is the primary purpose/goal of the app? Please tick which of the following statements best describe the app

- ☐ Activity and workflow capture for administrative purposes eg Trendcare for capturing workload
- ☐ Clinical decision support tool eg calculators, drug interaction checker, fluids, pathways
- ☐ Patient education and engagement eg patient information videos, translation
- ☐ Patient information manager, information viewer and e-notes/orders eg ePA, Concerto - requires link to patient related information
- ☐ Data gathering for audit, research and improvement eg survey monkey
- ☐ Clinical education eg Khan academy
- ☐ Administrative task facilitation e.g. speech-to-text, email, calendar
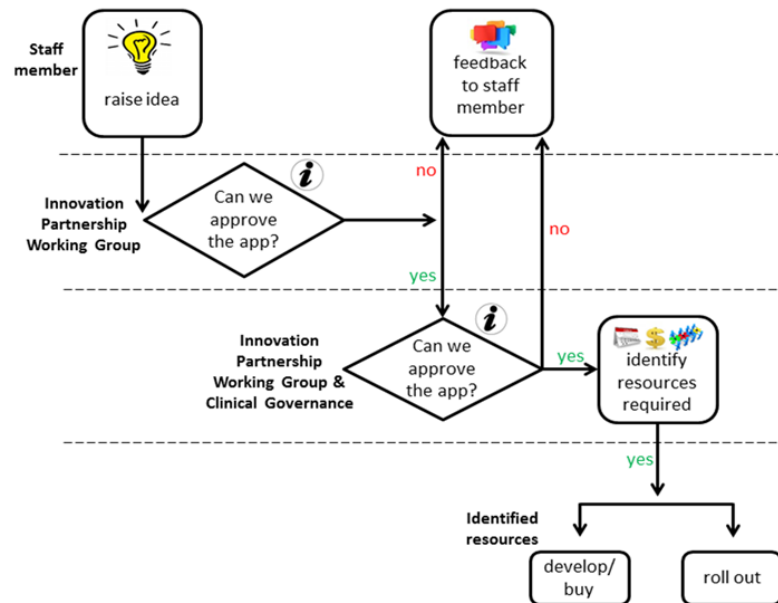
Description and use of the app

Please use the boxes below to describe the app and how staff would use it
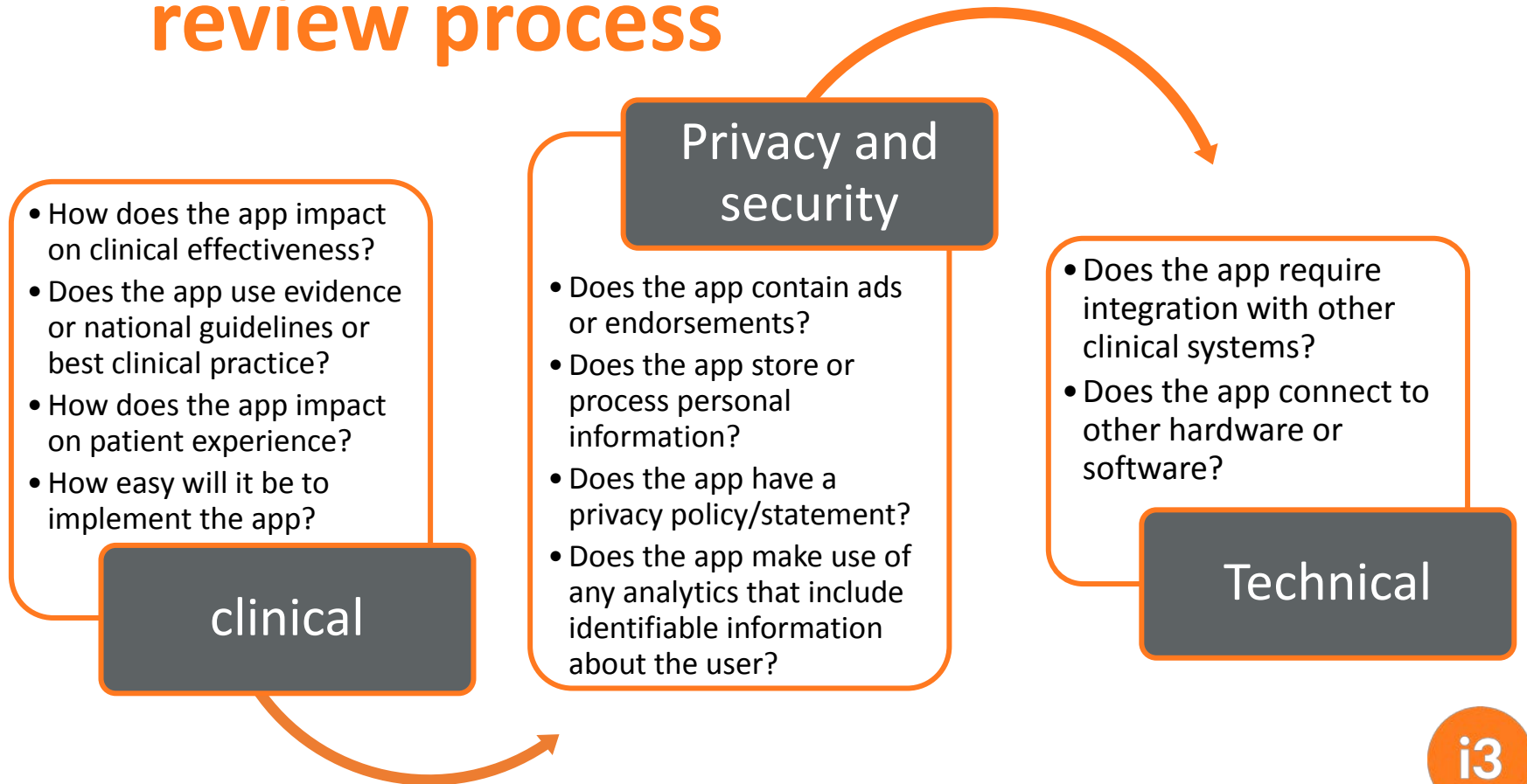
What will the app be used for?

Thank you for sharing your app idea or requesting an app to use in your work
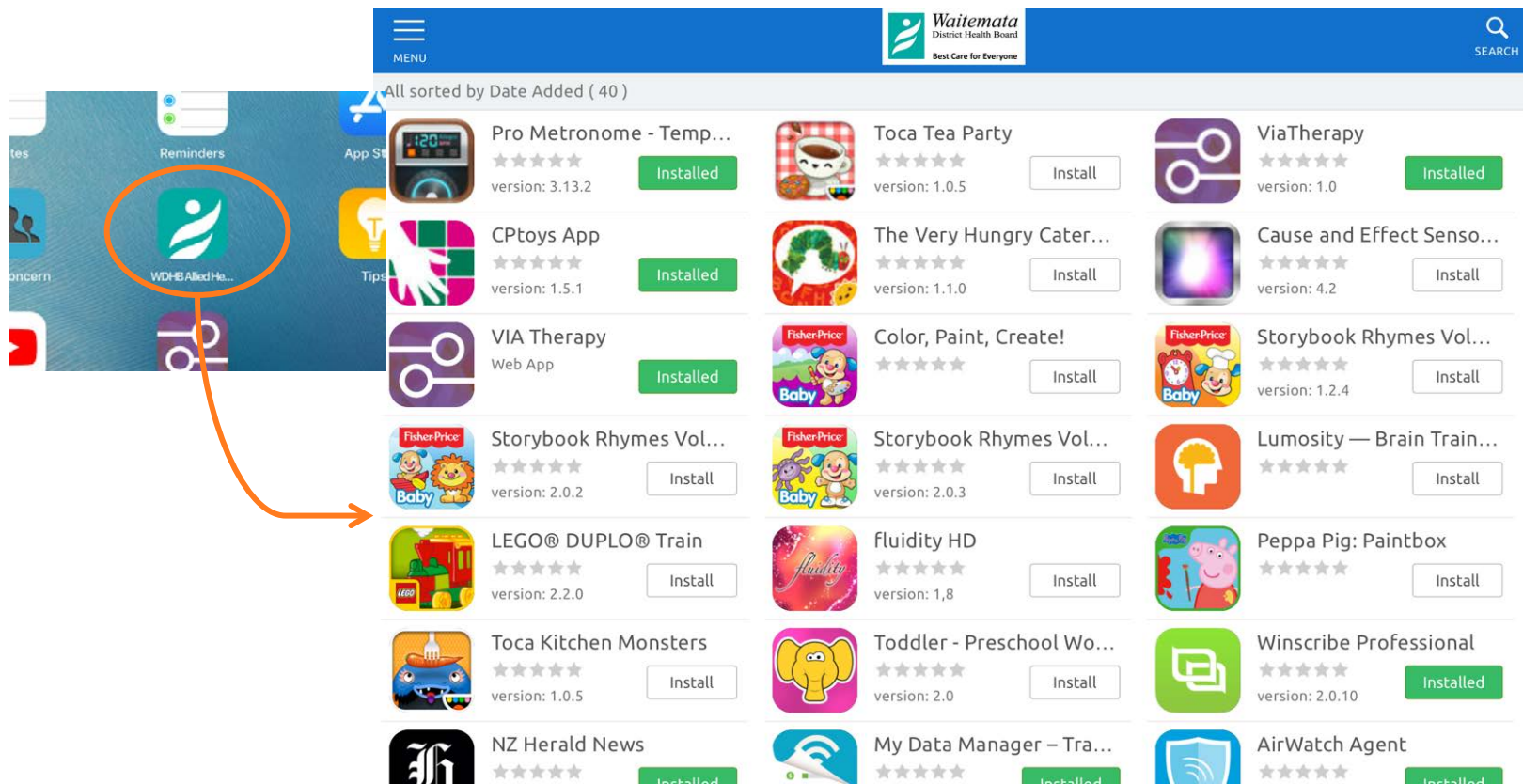
What will happen to my idea?

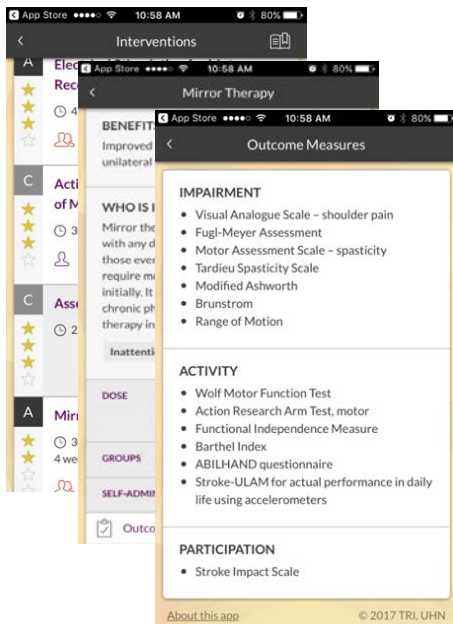**Staff member** — raise idea

Innovation Partnership Working Group — Can we approve the app? → no → feedback to staff member

yes ↓

Innovation Partnership Working Group & Clinical Governance — Can we approve the app? → no → feedback to staff member

yes → identify resources required

yes ↓

Identified resources

- develop/buy
- roll out

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review process

clinical

- How does the app impact on clinical effectiveness?
- Does the app use evidence or national guidelines or best clinical practice?
- How does the app impact on patient experience?
- How easy will it be to implement the app?

Privacy and security

- Does the app contain ads or endorsements?
- Does the app store or process personal information?
- Does the app have a privacy policy/statement?
- Does the app make use of any analytics that include identifiable information about the user?

Technical

- Does the app require integration with other clinical systems?
- Does the app connect to other hardware or software?
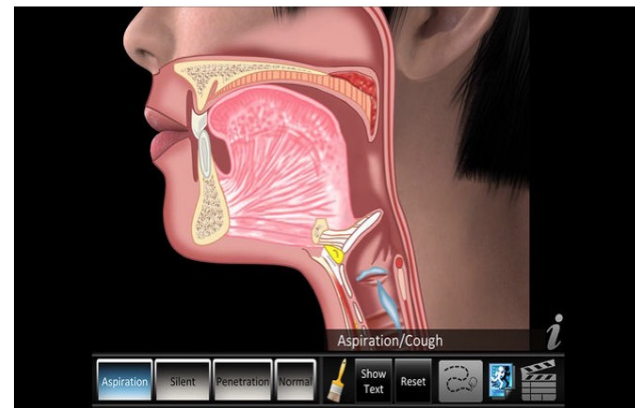
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accessing apps

example apps

"having this technology is vital – it enhances the service we offer" (therapist)

"I could see the volume ...using the decibel/sound level meter app made it easier to understand the purpose of the speech therapy activities" (patient)

"I find videos and pictures very helpful to learn...really helpful to see what happens when Nick swallows" (patient's wife)

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learnings

High risk

need integration with health IT systems or store personal health information

pose significant risk to patients due to inherent complexity, functionality or potential for harm if misused, eg displays, stores and analyses or shares health information

Medium risk

include advice/calculators/algorithms

may cause harm if used inappropriately or without adequate training, eg provides, facilitates or supplements care by promoting, coaching or reminding patients, helps patient to track or organise health information

Low risk (*but not no risk*)

Do not touch DHB systems or personal health information

Pose minimal risk to patients if misused, eg electronic versions of medical text books, patient education tools

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summary

- Mobile health apps can create opportunities to optimise clinical effectiveness, patient experience and patient outcomes

- Important to have a framework to review and prioritise apps

- Apps can be categorised by risk. Risk rating can be used to determine rigour required for review

- All apps require some level of critical evaluation

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